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[54] **DENSE STAR POLYMERS AND DENDRIMERS**

[75] Inventors: **Donald A. Tomalia**, Midland; **James R. Dewald**, Bay City, both of Mich.

[73] Assignee: **The Dow Chemical Company**, Midland, Mich.

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Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 456,226, Jan. 1, 1983, Pat. No. 4,507,466, and a continuation-in-part of Ser. No. 565,686, Dec. 27, 1983.

[51] **Int. Cl.**[4] **C08G 69/00**

[52] **U.S. Cl.** **528/332**; 525/451; 528/310; 528/328; 528/363; 528/425

[58] **Field of Search** 528/332, 363, 310, 328, 528/331, 425; 525/451; 560/155, 169, 171, 215; 564/153, 155, 468, 509

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Primary Examiner—Harold D. Anderson

Attorney, Agent, or Firm—M. S. Jenkins

[57] **ABSTRACT**

Dense star polymers having terminal group densities greater than conventional star polymers exhibit greater and more uniform reactivity than their corresponding conventional star polymers. For example, a third generation, amine-terminated polyamidoamine dense star polymer prepared from ammonia, methyl acrylate and ethylenediamine has 1.24×10^{-4} amine moieties per unit volume (cubic Angstrom units) in contrast to the 1.58×10^{-6} amine moieties per unit volume contained by a conventional star polymer. Such dense star polymers are useful as demulsifiers for oil/water emulsions, wet strength agents in the manufacture of paper, and agents for modifying viscosity in aqueous formulations such as paints.

7 Claims, No Drawings